

RYDEEN®

find your road



GCOM™
systems

Owner's Manual

MN312S/MN312D **Mirror Replacement Navigation System**

v1.0

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1. Welcome Statement & Warnings

Congratulations and thank you for purchasing the RYDEEN MN312S/MN312D Mirror Car Navigation Unit. We hope you will enjoy using this exciting product and trust that it will make your driving experience more comfortable and hassle-free.

The MN312S/MN312D provides an easy-to-use touch screen user interface, clear, easy-to-understand spoken instructions, and innovative functionality in a stylish housing that replaces the factory mirror.

Please read this Owner's Manual carefully. If you have any further questions about your MN312S/MN312D's operation, feel free to call RYDEEN, Toll Free at 1-877-777-8811 (within USA only) for product support, or visit our website: www.rydeenmobile.com.

PRECAUTIONS & WARNINGS

IMPORTANT INFORMATION **PLEASE READ CAREFULLY BEFORE USING THIS PRODUCT**

This product is intended to provide accurate turn-by-turn directions that will help you quickly reach your desired destination. We therefore, recommend that you read and follow all information and instructions in this Owner's Manual for the best performance and satisfaction of your MN312S/MN312D.

- Your MN312S/MN312D **IS NOT** a substitute for personal judgment. The route suggestions should never supersede any local traffic regulation, personal judgment or knowledge of safe driving practices. Before making any maneuvers (for example, a U-turn or a left turn) suggested by the MN312S/MN312D system, please be sure that such a maneuver can be completed legally and safely. Do not follow route suggestions that could put you or your vehicle in a potentially unsafe or illegal circumstance.
- You should not depend on MN312S/MN312D to locate emergency services (such as police, fire stations, hospitals and clinics). The database may not include all emergency service providers. It is the best to call your local police department and ask for directions in these situations.
- Set the unit volume at a level that will allow you to hear outside traffic and emergency vehicles.
- Avoid placing cell phones or wireless transceiver devices near the GPS antenna (located in the rear of the unit) as their signals may weaken or interfere with the GPS satellite signal being received by your MN312S/MN312D, causing it to perform poorly.
- The MN312S/MN312D should not be programmed while driving. The driver can only program the unit while the vehicle is parked in a safe location. Otherwise, a passenger may program and operate the unit while the vehicle is in motion.
- **SEVERE INJURY RISK -DO NOT** mount your MN312S/MN312D on the surface of, or in the deployment field of your vehicle's driver and passenger

airbag units.

- Position the unit in a location that does not obstruct the driver's view of the road, instruments or vehicle controls.
- Position the unit so the screen can be viewed with just a quick glance. Glance at the unit screen or manipulate the in-route touch screen controls *ONLY WHEN VEHICLE IS COMPLETELY STOPPED AND IT IS SAFE* to do so.
- Be sure the MN312S/MN312D unit is securely attached to the windshield of your vehicle with the supplied bracket.
- *DO NOT* attempt to modify or disassemble the MN312S/MN312D unit. Personal injury or damage could result. If a problem occurs, stop using the system immediately and contact RYDEEN. Changes or modifications to the MN312S/MN312D will void the warranty and its compliance with FCC rules thus making it illegal to use.
- If you notice any of the following: (unidentified liquid on the unit; smoke rising out of the unit; unusual odor emanating from the unit) – **STOP USING THE UNIT IMMEDIATELY.** Contact the nearest RYDEEN retailer or call RYDEEN Customer Service for assistance Toll Free @ 1-877-777-8811 (within USA only).
- *DO NOT* mount your MN312S/MN312D on any non-automotive form of transportation (motorcycles, bikes, ATV's, watercraft).

WARNINGS

- Avoid dropping your MN312S/MN312D unit or subjecting it to excessive shock and vibrations as this may cause it to malfunction.
- DO NOT use any sharp object to operate your unit's touch-screen display. Excessive force could damage the LCD display.
- Keep the MN312S/MN312D unit out of reach of small children. Removable parts (microSD memory card) can be a choking hazard.
- **The MN312S/MN312D unit IS NOT WATERPROOF.** Avoid exposing it to rain or other forms of excessive moisture. **Water damage is not covered under the warranty.**

WARNINGS

- **THE FOLLOWING INSTRUCTIONS ARE INTENDED FOR AUTHORIZED RYDEEN MOBILE INSTALLERS ONLY**
- **PROFESSIONAL INSTALLATION BY AUTHORIZED RYDEEN RETAILER REQUIRED TO BE COVERED UNDER WARRANTY**

2. What's in the Box

Your MN312S/MN312D system comes complete with everything you need to get set up and get going. Please take a moment to review the contents of your system.



MN312S/MN312D

Windshield Mounting Stem is Sold Separately

(Choose from the following types. Check for updated mount type availability at www.rydeenmobile.com/GPS%20Car%20Navigation/VehicleSpecificMounts.html)



VSM-A

Most Toyota, Nissan, Mazda & Ford



VSM-B

Most Honda



VSM-D

Kia & Hyundai



VSM-E

Most VW & Audi



VSM-UNI

Universal Package

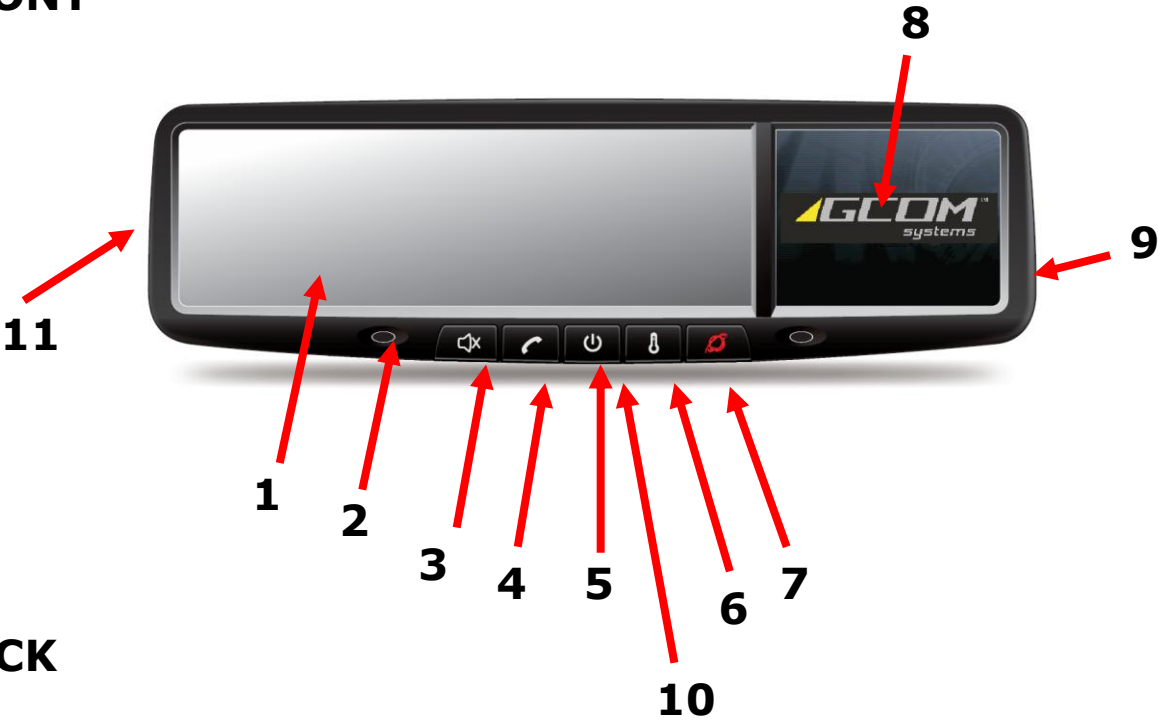


UV Glue

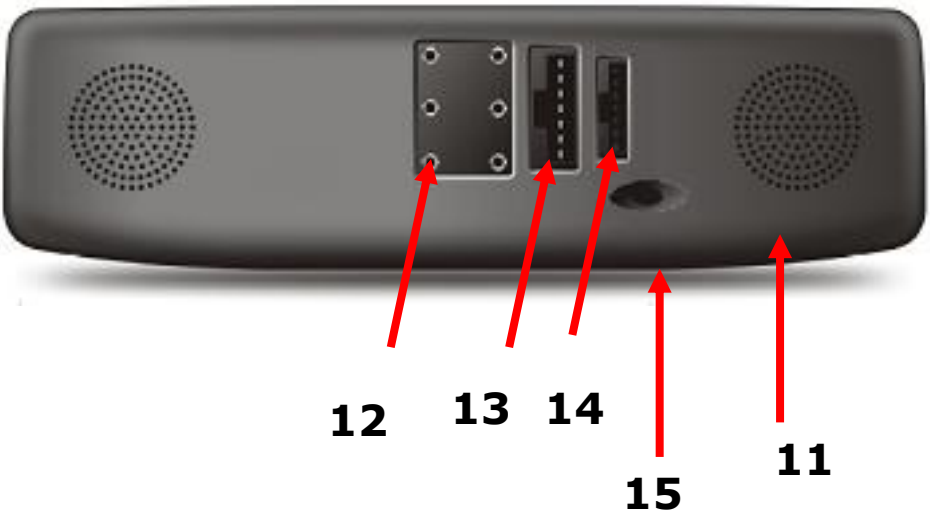
3. Product Overview

MN312S / MN312D

FRONT



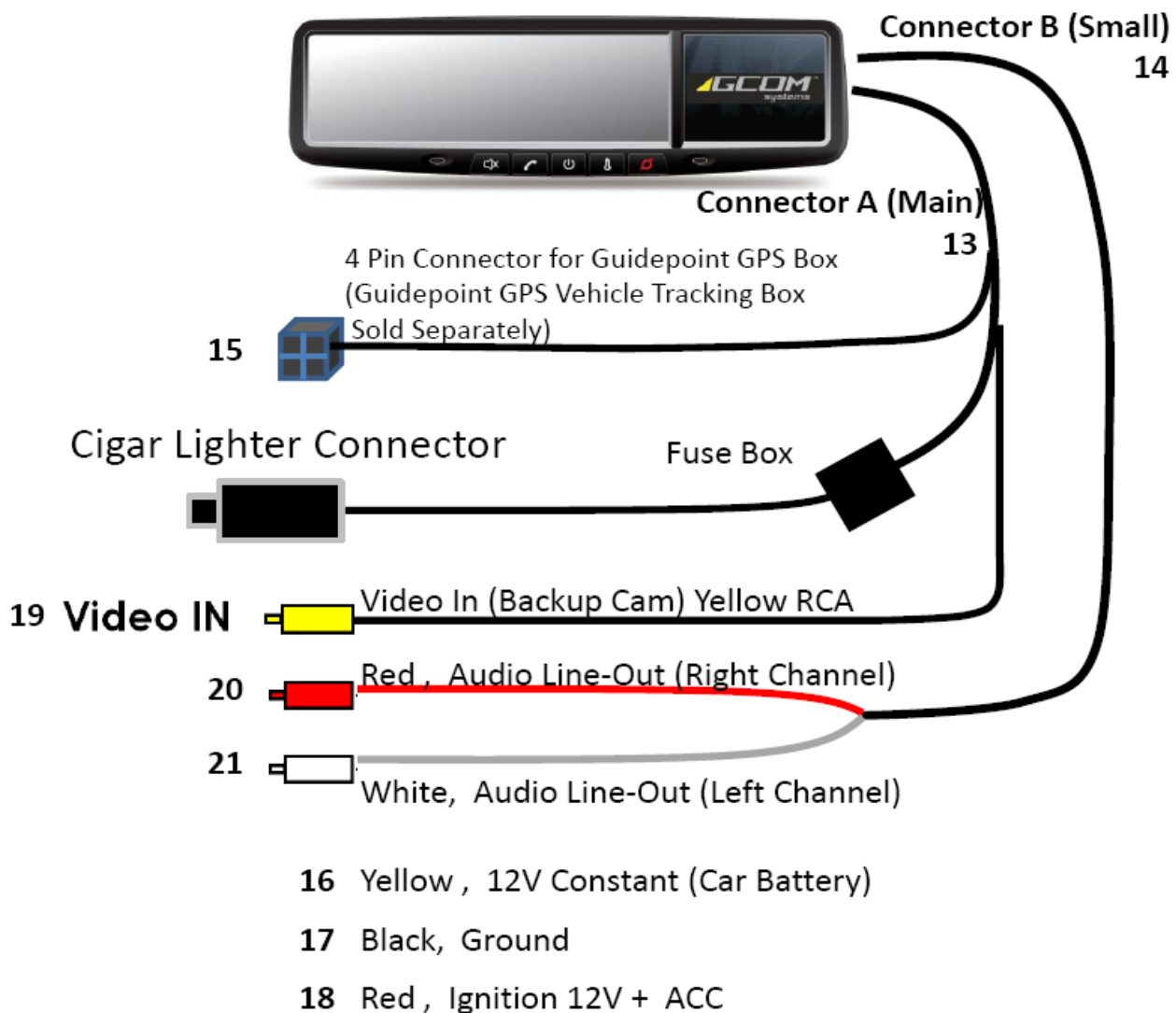
BACK



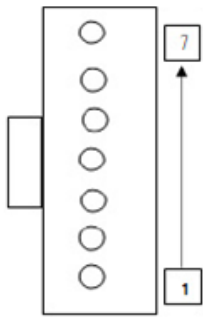
	FRONT	Description
1	Mirror	Reflective Area for Rear Viewing
2	Photo Sensor / Bluetooth Microphone	Opening for Photo Sensor for Auto-dimming Function (MN312D only) and Microphone for Bluetooth Function
3	Mute/Volume Button	SHORT PRESS – Mutes Sound LONG PRESS – Opens Volume / Music Control Main Screen
4	Bluetooth Button	SHORT PRESS – Answer / Hung Up Bluetooth Connected Phone LONG PRESS – Opens Bluetooth Main Menu
5	POWER	MN312S – Power ON/OFF with LONG PRESS MN312D – Power ON/OFF with LONG PRESS. Turns ON/OFF Auto-dimming Function (RED is OFF) with SHORT PRESS
6	Temperature Button	SHORT PRESS – Displays Temperature at Current Screen LONG PRESS – Displays Temperature Main Screen with Calibration (+/-) buttons
7	Guidepoint Button	SHORT PRESS – Connects with Guidepoint Call center via Bluetooth connected call phone (dialing preprogrammed toll-free phone number) LONG PRESS – Triggers Guidepoint GPS Tracking System module (sold separately) for Transmitting GPS Location Alert to the Guidepoint Call Center in Case of Emergency
8	TOUCHSCREEN	3.5 inch touch screen of the GPS and other mirror functions
9	microSD CARD PORT	Supports up to 8GB microSD card for Map Update and Music Play
10	RESET Button (Located at the Bottom of Unit)	Use a PEN to press the button, to RE-START the unit (System Re-Boot)
11	Speaker Unit (Back)	2.5W Built-In Speaker

NO.	BACK / CABLE	Description
11	SPEAKER	2.5W Built-in Speaker
12	BRACKET CHASSIS	Attaches to Vehicle Specific Bracket Here
13	Connector A	Main Connector
14	Connector B	Second Connector for Audio Connection
15	4 Pin Connector	Connector for Guidepoint GPS Tracking Box
16	BATTERY (YELLOW) *	12V+ Constant power supply
17	GND (BLACK) *	- Chassis Ground
18	ACC (RED) *	12v+ ACC Controlled Power Supply
19	Backup Camera In	Video In for Backup Camera (YELLOW RCA)
20	Audio Out Right Ch (RED)	Connected to Audio Amplifier (Right)
21	Audio Out Left Ch (WHITE)	Connected to Audio Amplifier (Left)

*Located Inside the Main Power Cable

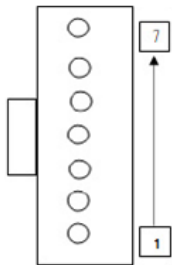


Connector PIN Descriptions:



Connector A

Pin	Color	Description	Terminal
1	Red	Ignition 12v + (ACC)	Bare
2*	Black	Ground	Bare
3	Yellow	12 DC Constant (car battery)	Bare
4	Yellow	Camera In +	RCA
5*	Blue	Guidepoint On-Call Negative Trigger output (-)	4* pin connector
6**	White	Temp sensor Send	Bare
7**	Green	Temp sensor Receive	Bare



Pin	Color	Description	Terminal
8	Red	Audio Line Out + Right	RCA Male
9	White	Audio Line Out + Left	RCA Male
10	Black	Audio Line Out Right & Left -	RCA Male (Ground)
11	N/A	N/A	N/A
12	N/A	N/A	N/A
13	N/A	N/A	N/A
14	N/A	N/A	N/A

Connector B

4. Installation

NOTES

- To find your nearest professional Rydeen Authorized installer, please call Rydeen Mobile Electronics at **1-877-777-8811**, so that we can assist you.
- Dropping your MN312S/MN312D unit or subjecting it to excessive shock and vibrations as this may cause it to malfunction and is not covered by warranty.
- The MN312S/MN312D units ARE **NOT WATERPROOF**. Avoid exposing it to rain or other forms of excessive moisture. Water damage is not covered under the warranty.

Most vehicles have the mirror mounted directly onto the glass; therefore improper tools or techniques used in the installation could result in a damaged or broken windshield. Rydeen is not responsible for damages to windshield caused by installation processes.

1) Remove the existing mirror and unplug a connector if exist. (Note: All vehicles use different mounting solutions. If necessary, consult your local automotive dealer or installation professional for specific instructions.)



2) Attach the vehicle-specific mounting stem (sold separately) to the back of the mirror using the supplied washers and screws, starting with the holes nearest the top of mirror housing.

3) Mount the MN312S/MN312D using supplied screw. Slide or twist it onto the factory mounting base and carefully tighten the screw until secure.



4) Plug in the cigar lighter power connector to the car power outlet or if necessary the unit can be hardwired for better appearance.

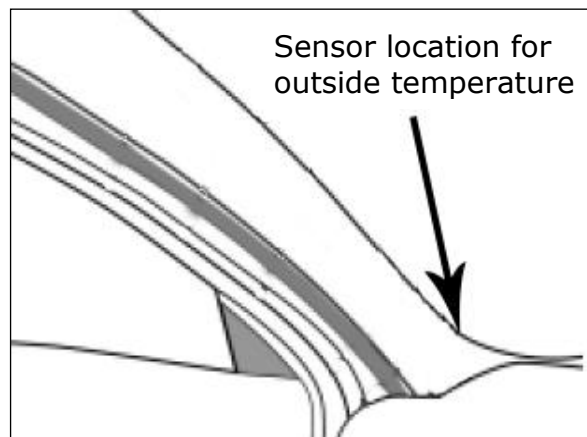
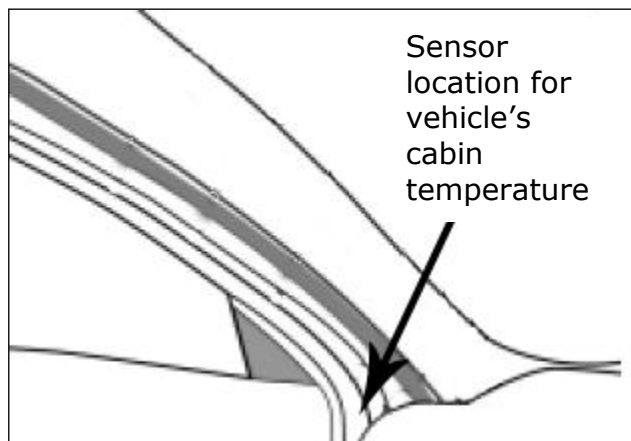
Note

Please refer to Guidepoint installation manual for the Guidepoint GPS Vehicle Tracking Box installation. Guidepoint GPS Tracking Box is sold separately and service activation is necessary. Contact Guidepoint Systems Inc. for more information (Toll-Free 1-877-477-3463).

Note

Cables connected to PIN 6 & 7 are for temperature sensor connections. Please contact Rydeen Tech Support (Toll-Free 1-877-777-8811) for more details.

Temperature Sensor installation locations (Suggested Installation locations for Optional Temperature Sensor for optimum sensitivity)



5. Getting Started (Navigation)

Configuration Wizard

This wizard, which automatically starts at the first time you use **RYDEEN GPS**, lets you easily configure the system settings by providing a step-by-step setup process. You can also configure these system settings by going to the system options from the **Settings** menu.

- **Language Settings** - Set text and voice language preferences.
- **EULA** – Confirm the terms and conditions of using the software. Select "I Agree" and proceed.
- **Time Zone** – Select the time zone according to where you live. Select Daylight Saving if applicable.
- **Units of Measure** - Set the units of measures of your preference.
- **Warning** - When you start **RYDEEN GPS**, the **Warning** screen appears. Please take a moment to review the information provided before tapping the **Agree** button. Select the "Do not display this warning again" checkbox to skip this message in the future.

Note: Destinator is a software provider for Rydeen Navigation.

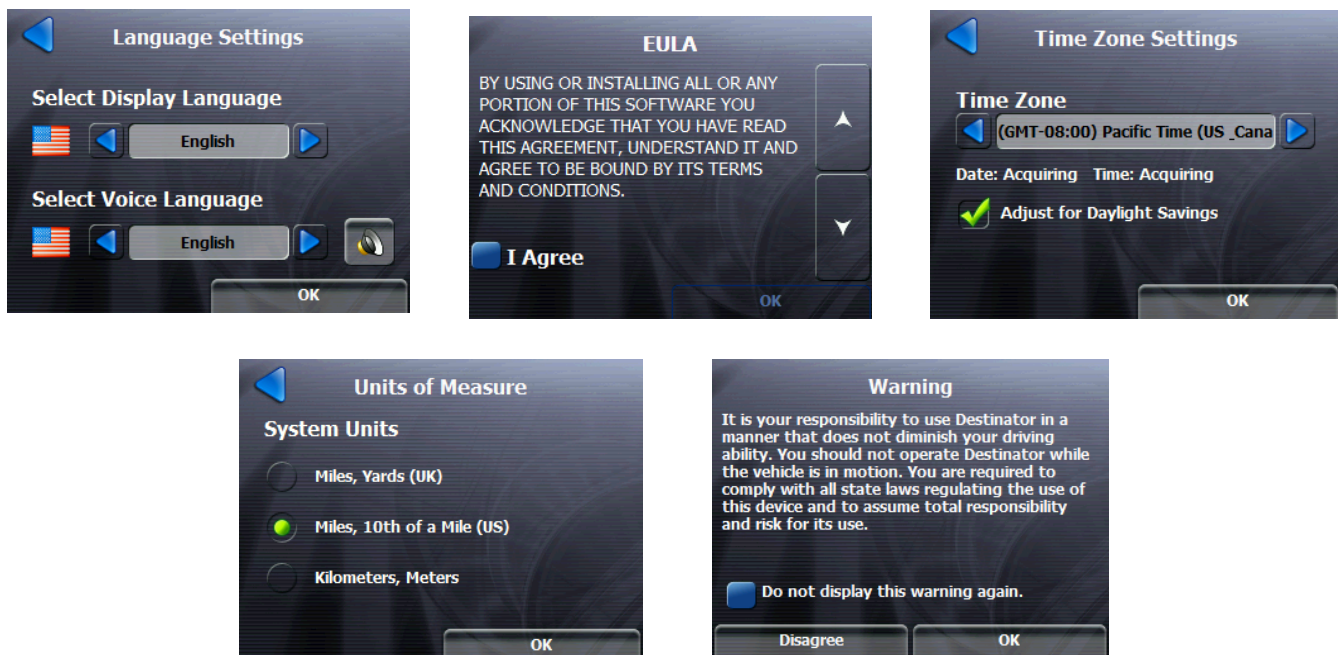


Figure 1 –Configuration Wizard

Main Map

You can use the icons displayed on this screen to plan and view your route.

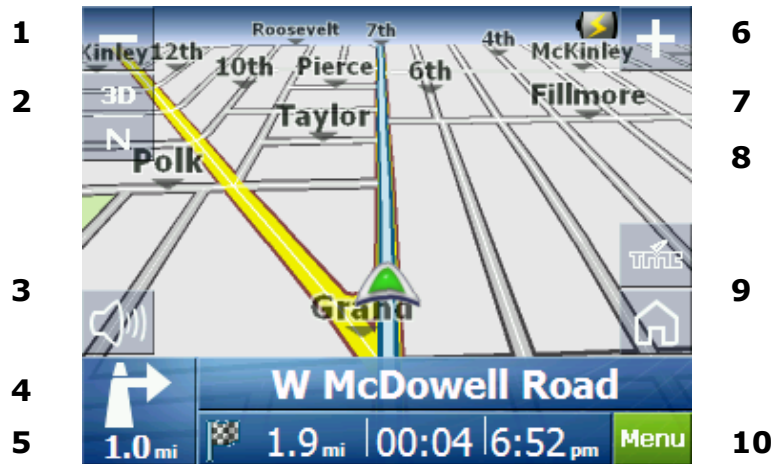


Figure 2 - Map Screen

Main Map Icons

1, 6		Zoom in or out of the map to view a larger less detailed area or a smaller area in greater detail
2		Tap the compass to change the map view display as follows: 2D map view with the forward direction at the top. 3D map view with the forward direction at the top. 2D N↑ map view with North at the top.
3		Use the Volume bar to adjust or mute the volume.
4		When you have calculated a route, the Directions bar displays information about your next turn. Tap this bar to hear the voice announcement of next maneuver.
5		The GPS bar is a toggle button. Tap this area to display the remaining travel distance and travel time, estimated time of arrival, street name and address number.

7		Speed limits are visible only when the Speed Warning prompt is selected. When you are exceeding the speed limit, RYDEEN GPS displays the following icons:
8		These icons display your power source.
9		Tap this icon to set your QuickNav location. When set, you can tap this button to automatically calculate a route to this location.
10		Tap this icon to display the Main Menu .

Location Point on Main Map

You can drag the map to a specific point and tap the desired location directly on the **Main Map** screen in both 2D and 3D map view. This feature is useful when you want to navigate to a specific point on the map, rather than by the street address. When you tap on the map, the pop-up menu appears with the following options:

Tap

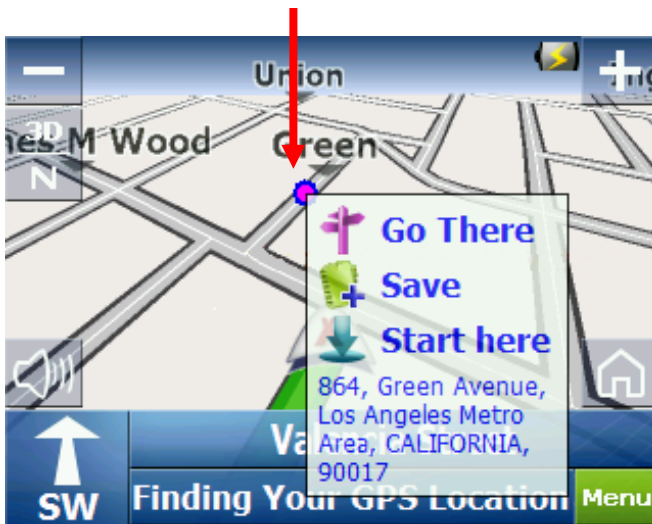


Figure 3 - Point on the Map Options

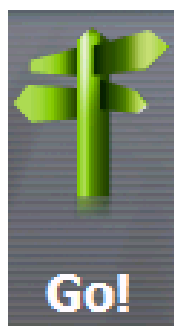
Go There - Navigate to the selected point on the map.

Save (Add to my Favorites) - Save a point on the map as a favorite destination for future use.

Start here - Designate the selected point as the starting point instead of your current location.

6. Select Location and Generate Route

Go to an Address



From the **Main Menu**, tap the **Go!** button. Then **Where Do You Want To Go?** Screen appears, allowing you to choose from **New Address**, **POI (Point of Interest)**, **Recent Place** or **Favorites**.

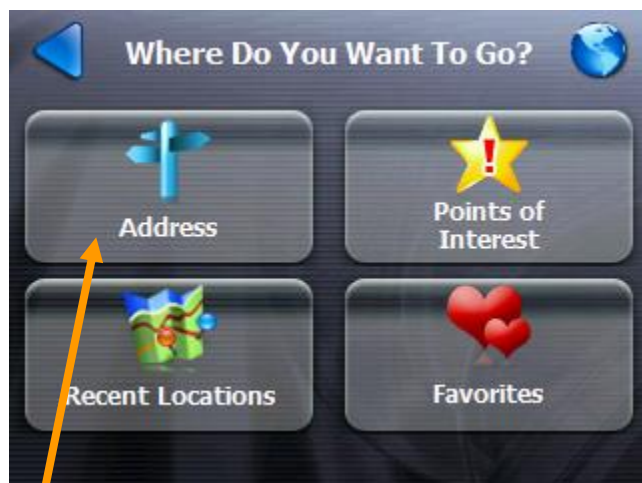


Figure 4 - Search by POI Name

Tap the **Address** button to enter address information. Then follow the steps below.



- Select **City First**. Enter a City then tap OK.
- Enter a **Street** then tap OK.
- Enter a **Address & Number** then tap **OK**.
- If going to a different State, select Change State to enter a **State** you want to go. Then tap OK.

Figure 5 – Enter Address Screen

Select from the following address entry options:

- **City First** – City > Street > Address Number
- **Intersections** – City > 1st Street > 2nd Street

Tap one of the **Enter Address Screen Buttons** to display the first address screen.



Figure 6 - Selecting a State

When entering an address, you can use the keyboard to enter the characters. The characters appear in the **Address** field. **Rydeen GPS** automatically searches the **Address** list for the first occurrence of the characters entered. After you have selected a town or city, **Rydeen GPS** displays the next address field, such as street and address number.

Instead of specifying a street, you have the option of selecting the Town/City Center. If you don't know the address number, you can select the Street Midpoint.

Tap the **OK** button to move through the sequence of address screens.

Go to Another Country

From the **Enter address** screen, you can tap **Change State** to select a State of another country that you can travel to by vehicle.

This feature is available only when you have the following maps installed:

- Map of the country where you are currently located.
- Map of the country where you want to travel.
- The map of the major roads for that continent that connect one map to another (for example, the major roads in USA & Canada)

For example, if you are in New York and you want to travel to Toronto, select the State of Canada (for this case Ontario) and designate Toronto City Center as your destination. **Rydeen GPS** automatically displays the map of USA when traveling on local roads in USA, a map of major roads in USA, when traveling on a USA major road. The map of Canada automatically displays when traveling on roads in Canada.

Keyboard Command Keys

The following buttons are available to enhance your search process.

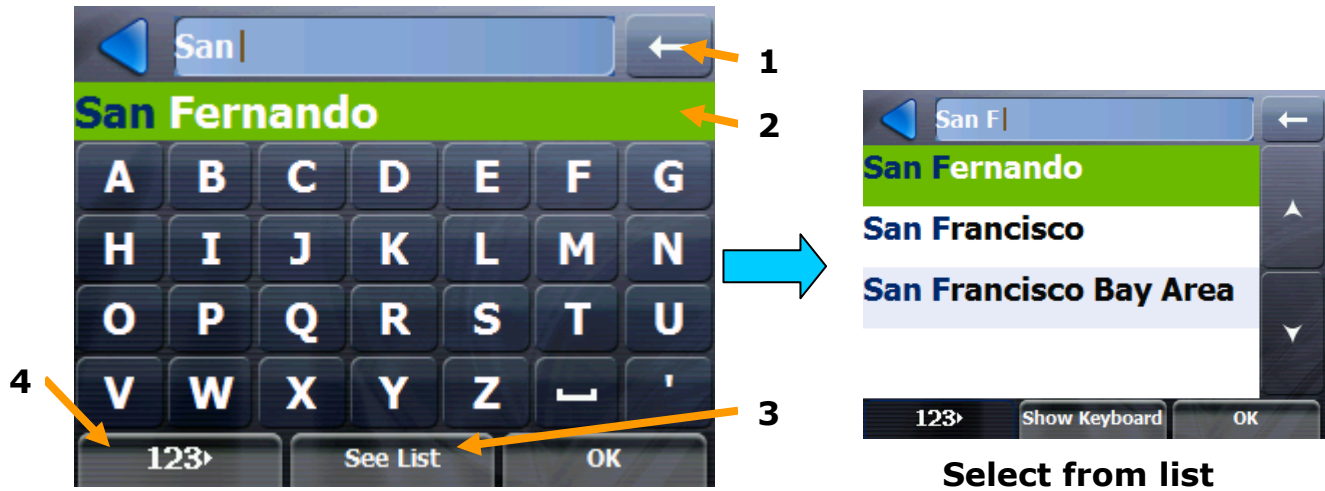


Figure 7 - Search and Keyboard Buttons

1	Lets you move back a character that you have entered.
2	Lets you scroll up or down the list of town/city or street names.
3	Lets you extend the address list by hiding the keyboard.
4	Lets you change the keyboard for address number input. Note: Rydeen GPS automatically switches to the address number input keyboard after you enter street numbers and tap OK. To switch back to the alphabetical address input screen, simply tap the ABC key.

Selecting a Destination and Options

The following screen appears when a destination address input is complete and ready to navigate.



Go - When you **tap** the **Go** button, **Rydeen GPS** calculates the route to your selected destination.



When you tap this button, **Rydeen GPS** returns to the previous screen.

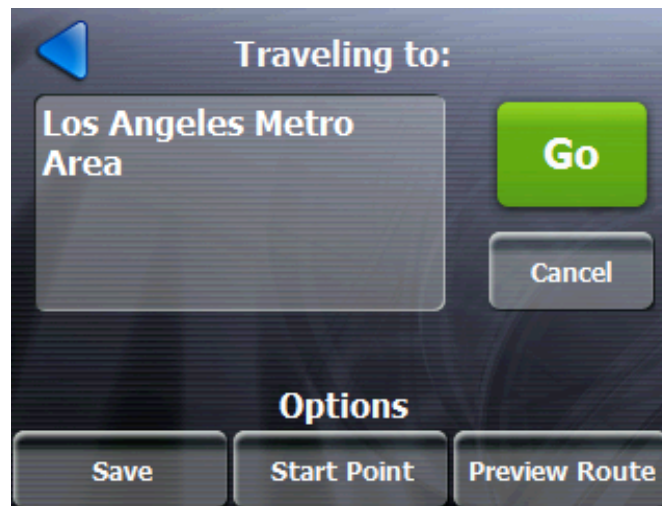


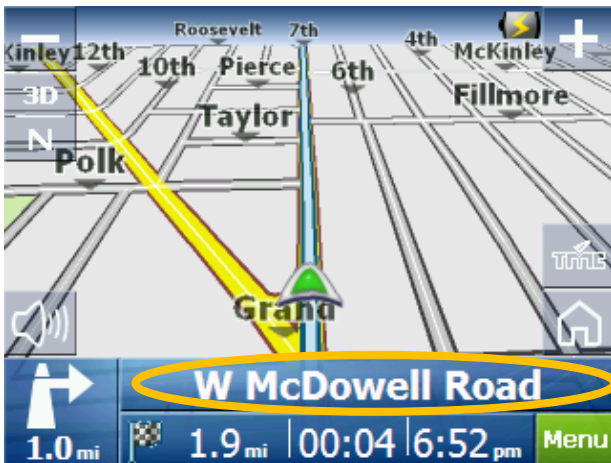
Figure 8 –Route Selection Confirmation Screen

Options

Tap the one of **Option** button to:

- **To save an Entry** - Tap **Save** to add an address to your list of favorite locations. For more information about favorites, see [Favorite Locations](#) on page 28.
- Set an Address as the **Starting Point** - Tap the **Starting Point** button to designate the selected address as the route origin.
- **Preview Route (Demo Route)** – Run simulated route to selected address.

Navigate to an Address



Tapping the street name changes the screen to Manage Route



From the **Manage Your Route** menu, **tap** this button to display a complete turn-by-turn list of directions from your current location to the selected destination. **Rydeen GPS** continuously updates the Turn-by-Turn screen to display the most current instructions as you navigate the route.



Figure 9 - Turn-by-Turn Display

Note: The first turn is at the top of the list and the final turn is at the bottom, identified by a checkered flag.

The following options are available:

Route **Tap** to display your entire route on the **Main Map** screen, plus the travel distance and the **Estimated Travel Time Remaining** (ETR).

Turn **Tap** to display the next turn on the **Main Map** screen, including the street name, the distance to the turn and the turn direction.

Avoid **Tap** to avoid the selected turn in the **Turn-by-Turn** list. **Rydeen GPS** recalculates the route automatically. Note that when you exclude a turn, the recalculated route may take longer.

Road Type



When **Road Type** is select, **Rydeen GPS** provides the following routing options:



Figure 10 - Route Type Selections

Quickest - This option selects the route that takes the least amount of time. Quickest is the default setting.

Shortest - This option selects the route that is shorter in distance. Note: The shorter route may not always be the quickest.

Pedestrian - This option lets you travel as a pedestrian, generating a route up to 6 miles, which is not limited by vehicle constraints, such as one way streets. When creating a pedestrian route, **Rydeen GPS** avoids freeways/highways or other roads where pedestrians would not travel. Voice prompts are deactivated in this mode.

Select OK to confirm your selection.



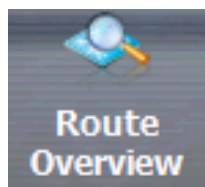
Figure 11 - Predefined Road Groups

Avoid Roads:

- **Highways** - Roads that allow for high volume, maximum speed traffic movement between and through major metropolitan areas. The default value is to allow.
- **Toll Roads** - Let you select to avoid the use of toll roads. The default value includes the use of toll roads.
- **Ferries** - The default value is to avoid.
- **Gated Communities** - The default value is to allow.

Select OK to confirm your selection.

Route Overview



When **Route Overview** is select, **Rydeen GPS** display your entire route, plus the travel distance and the **Estimated Travel**

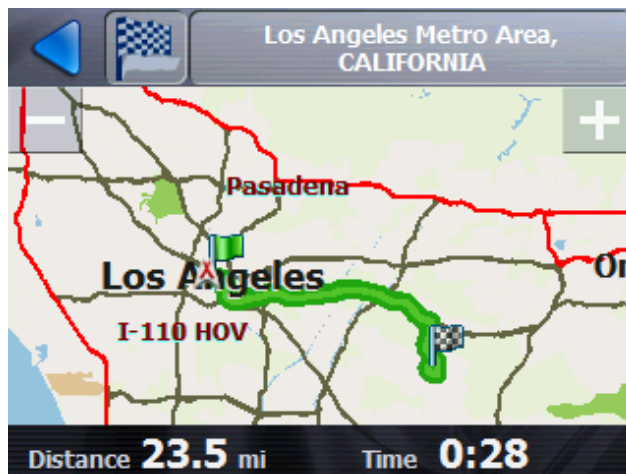


Figure 12 – Route Overview

Create a Detour



When **Create Detour** is selected, **Rydeen GPS** let you create a detour to avoid a road event, such as an accident.

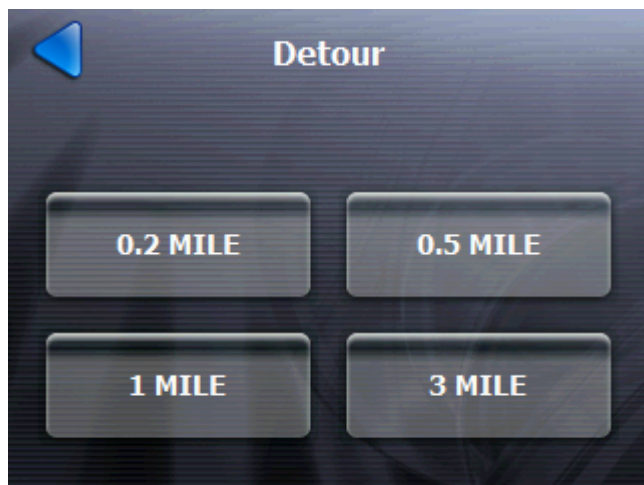


Figure 13 – Create Detour

Detour option let you generate a detour routing for the distance specified. For example, if you are traveling on a major highway and you are alerted by the news that there is traffic for the next 3 miles, you can have **Rydeen GPS** calculate a detour that takes you off the highway and then returns you to the highway after a distance of 3 miles.

Points of Interest (POI)



The Points of Interest (POI) list is a collection of millions of interesting or useful places organized by easy-to-find categories. For example, you can use **Rydeen GPS** to guide you to a shopping center, hotel, restaurant or gas station.

Many categories have subcategories to provide for an even greater list of choices. For example, gas station, may have many subcategories each representing a particular brand name. The same is also true for hotels. Restaurants have subcategories that represent different types of food, such as Indian, Italian and French.

Search for a Location Near You

You can determine the area where you want to search for a specific place, such as a gas station, hotel or restaurant. **My Current Location** is automatically selected.

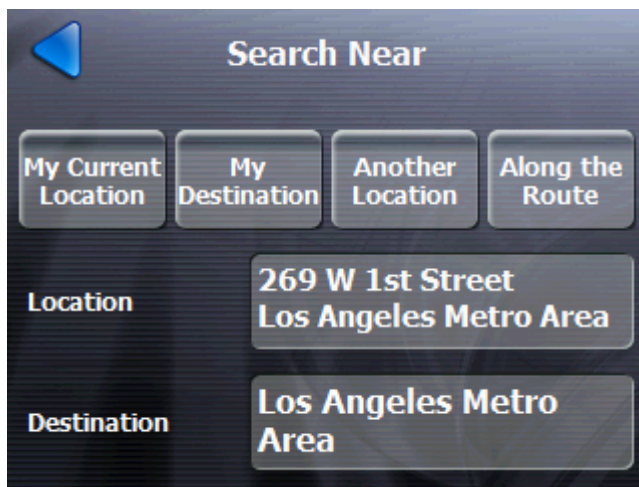


Figure 14 - POI Search

Tap **My Current Location** to search near your current location.

Tap **My Destination** to search near your specified destination. If a destination has not been selected and a route generated (by tapping the **Go** button), this button is disabled.

Tap **Another Location** to search for a POI in another location. This button opens the **Address Search Mode** screen, which is described in [Go to an Address](#) on page 17.

Tap **Along the Route** to search POI near your specified route. If a destination has not been selected and a route generated (by tapping the **Go** button), this button is disabled.

Search for a POI Category

When **My Current Location, My Destination or Along the Route** button is select, the most common POI categories are displayed.



Figure 15 - Most Common POI Categories

Tap the **right top corner** button to display the **All POI Categories**, where you can search through the entire list of POI categories.

Search for a POI Name



Figure 16 - Search by POI Name

Tap the **Spell Item** button to display the **Search POI** keyboard screen, where you can search by entering characters in the **POI Name** field. The Smart Search System automatically displays the POI names that match the characters entered. **Rydeen GPS** automatically displays the POI entries and the distance each entry is from your current location.

For example, if you enter "Denny" and tap the **Search** button. **Rydeen GPS** displays all Denny's Restaurants entries, as shown in the figure below. Tap **See List** to see the screen view below.

POI Preview Screen

After POI search completes, a list of POI result shows as following. Tap **Show on Map** then you will see **POI preview screen** that allows you to see your destination options at a glance.

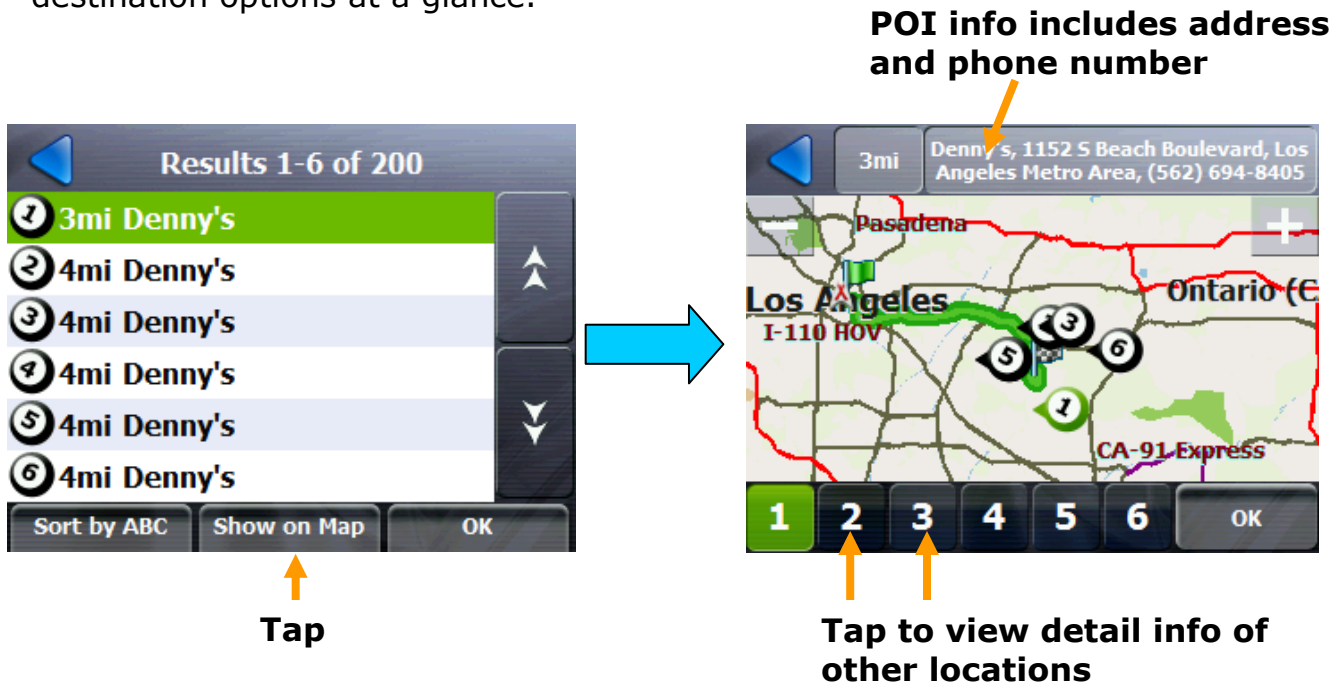


Figure 17 - Showing a POI Preview

Show or Hide POI Symbol on Map

You can select or clear the ticks next to a **POI** entry to show or hide the **POI** symbols on the **Main Map** screen.

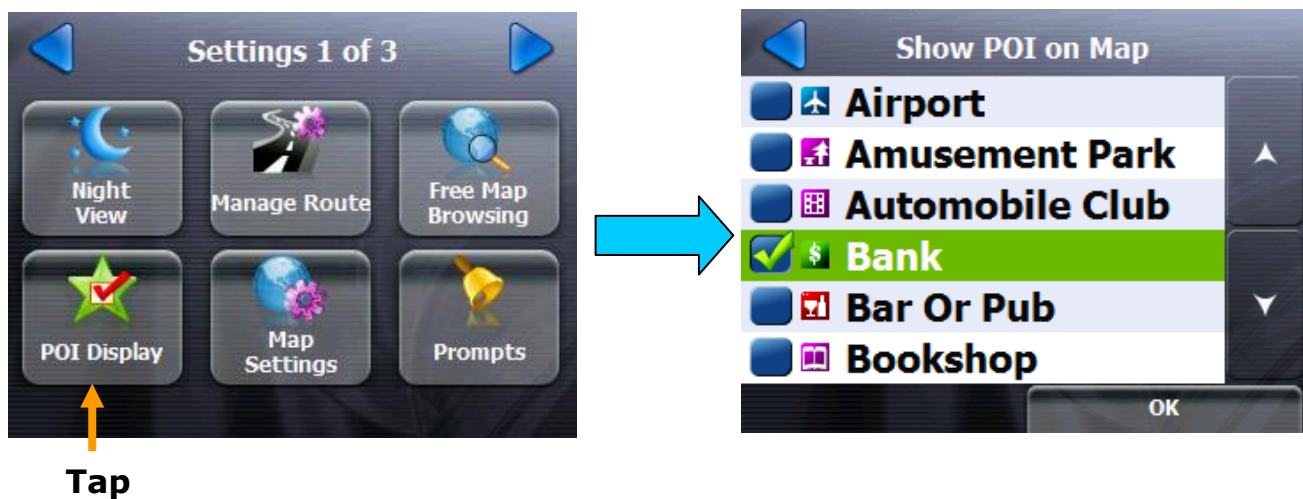


Figure 18 - Showing a POI Symbol on the Map

QuickNav

You can set a **QuickNav** destination so that every time you **tap** the  icon on the **Main Map** screen, **Rydeen GPS** automatically calculates the route to this destination for you. When you tap the **QuickNav** button for the first time, you must select a predefined address or a POI category.

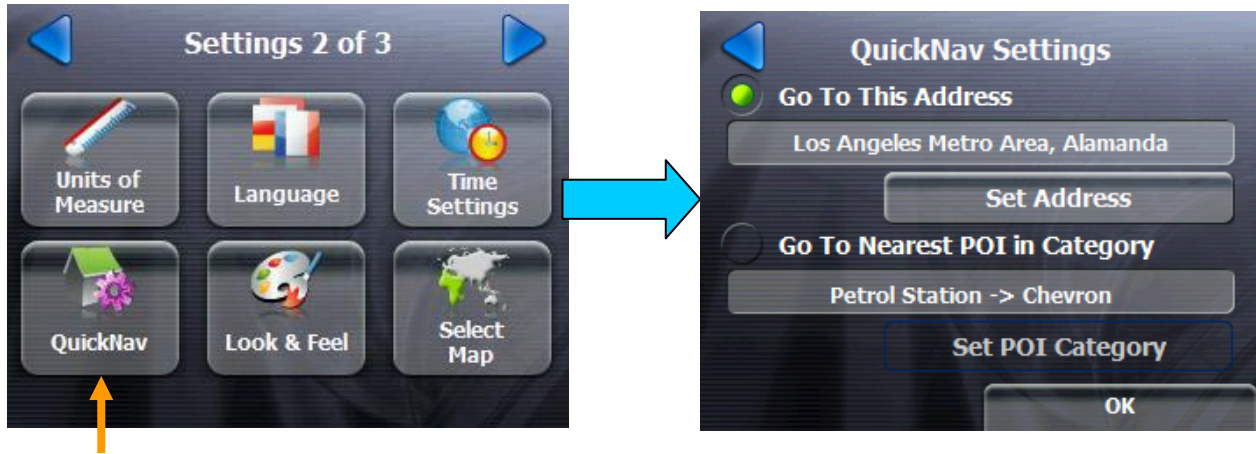
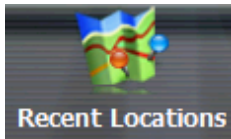


Figure 19 - Setting the Quick Nav Location

You can change the **QuickNav** settings by tapping the **QuickNav** button located on the **Settings** menu.

Recent Locations



From the "**Go!**" button, tap Recent Place button to select an existing destination from a list of destinations that you have previously traveled to.

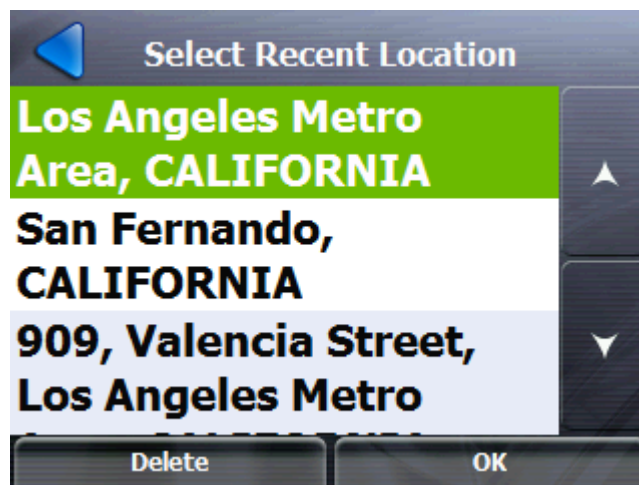


Figure 20 -Traveling to a Recent Location

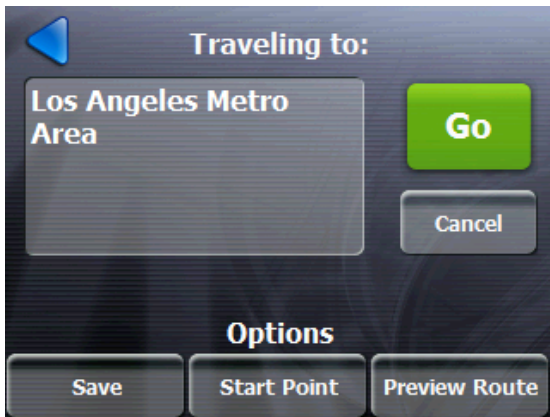
Rydeen GPS automatically stores the last 64 destinations in memory. After 64 destinations have been saved, the oldest destination entries are erased as you add new ones.

Favorite Locations (Address Book)

An **Address Book (Favorite)** is a destination that you have stored for easy retrieval. Save favorite destinations to your "**favorites groups**" and later you can easily travel to these destinations.

Note: You can also add a favorite destination from the **Address**, **POI** and **Recent Locations** screens.

Save a Favorite Location



From the **Traveling To** screen, tap **Save** button.

The **My Favorites** folder is the default folder where all favorites are stored.

Figure 21 - Adding a Destination to Your Favorites

Going to a Favorite Location



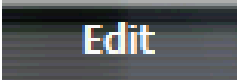
From the **Go To** menu, **tap** this button to display the screen containing your favorite groups. Select a group, for example **Restaurants**. **Rydeen GPS** automatically displays a list of stored locations for the selected group.



Figure 22 - Going to a Favorite Destination

You can add or clear the tick next to a **Favorites** entry to show or hide the **Favorites** symbol on the **Main Map** screen.

Creating a Favorite Group

Edit

From the “**Favorites**” screen, Tap “**Edit**” button to **Add Group**”, Edit or Delete location. Enter a name and select a group.



Figure 23 - Adding a Favorites Group

To add favorite destinations to your favorite groups, see ["Save a Favorite Location"](#) on page 28.

7. Additional Rydeen GPS Features

Map Browsing



Figure 24 - Explore the Map

Browse the map without a GPS signal. Tap the **"Free Map Browsing"** button. You can use **tap & hold** to scroll the map. When you have located the street destination, you can tap to that point of the map. A pop-up menu appears, **Tap "Go There"** to navigate to the selected point.

Map Selection

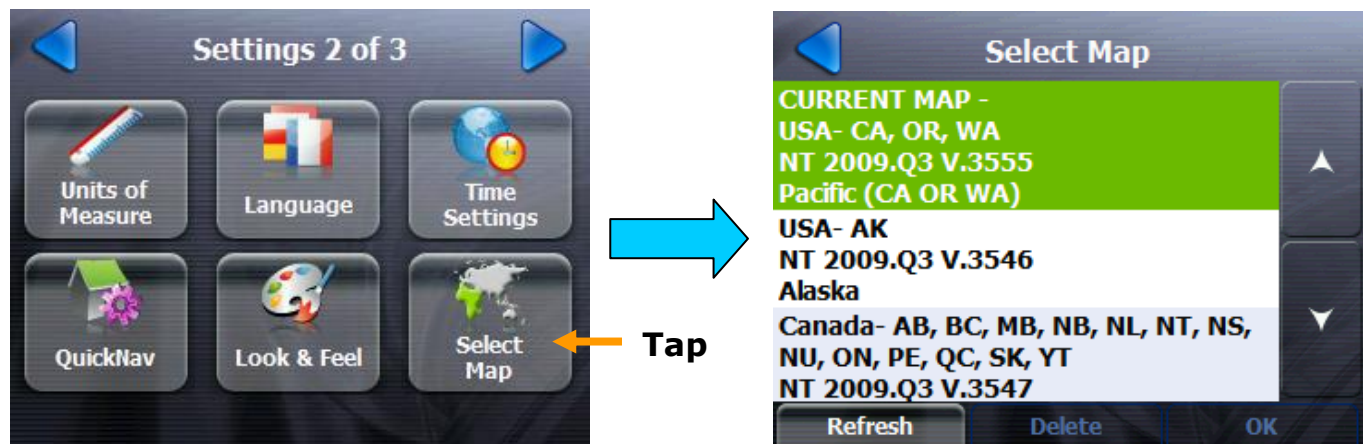


Figure 25 - Select a Map

From the **Options** menu, **Tap** the **"Select Map"** button to change the selected map to another map saved on your device memory.

8. Rydeen GPS Configurations

Settings Menu



Tap the “**Settings**” button to configure **Rydeen GPS** system settings to utilize travel playback and demonstration features.

Tap

Figure 26 – Enter Settings

Automatic Day & Night Adjustments



Tap

Auto Day-Night Adjustment - When this option is selected, **Rydeen GPS** automatically switches between day and night view according to the GPS time and date information provided. If this option is selected, but you manually switch the day/night view, it will remain in the mode you selected until the next time **Rydeen GPS** automatically switches the day/night view.

Figure 27 – Night View Button

Prompts

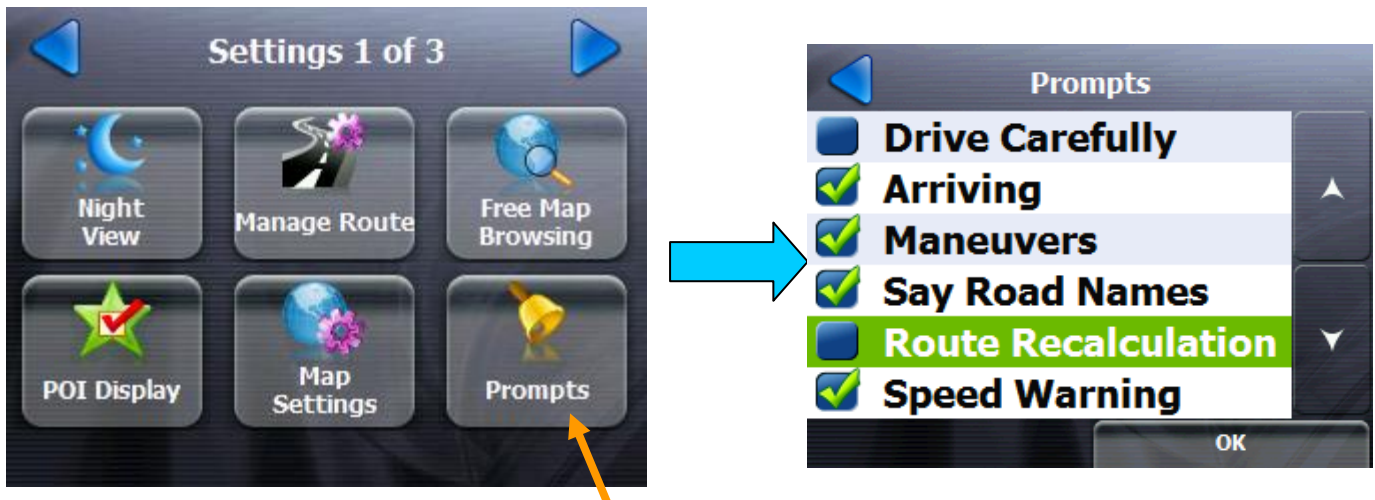


Figure 28 – Prompt Button

Tap

Tap the “**Prompts**” button to select the types of notifications that you would like to use or her while driving. Turn **ON** or **OFF** by tapping checkbox.

Road Prompts

Speed Warning

Warns you when your car exceeds the speed limit. This prompt is selected as default.

Route Recalculation

Notifies you when **Rydeen GPS** recalculates your route. For example, when you miss a turn. This prompt is not active by default.

Unreliable GPS Signal

Warns that the GPS signal is too low and unreliable for navigation. This prompt is automatically active by default.

GPS not found

Alerts you if the GPS signal is lost or if the power source has been removed from the GPS receiver.

Say Road Names

Rydeen GPS tells you the street number and name.

Language Settings



Figure 29 - Language Settings

Tap

From the **Settings** menu, **Tap** the "**Language**" button to display the Language Settings screen.

You can select from:

- **Display Language** - Address and map information, and screen and menu labels
- **Voice Language** - Select from English, Spanish or French.

Look & Feel Settings



Figure 30 - Look & Feel setting

Tap

From the **Settings** menu, **Tap** the "**Look & Feel**" button to select from a list of preinstalled skins. A skin determines the visual effects such as colors and icons displayed.

- **Prefer QWERTY Keyboard** - When this option is selected, the Navigation keyboard is displayed as a computer keyboard (QWERTY style) on the screen.

GPS Settings



Figure 31 – GPS Setting

From the **Settings** menu, **Tap** the “**GPS Signal**” button to display GPS information and to configure the GPS connection settings.

Rydeen GPS receives data from a built-in GPS receiver or an external GPS receiver, connected to your Navigation device, to pinpoint your location. Your vehicle's location and position are constantly updated unless you are working in the **Free Browse Map** mode or you tap the **GPS Off** button. The GPS receiver may take a few minutes to find its initial location. For best results, ensure that the GPS receiver has a clear view of the sky.

The **GPS Signal** screen displays the following information:

- **Longitude**
- **Latitude**
- **Speed**
- **Altitude**

If you are working in the **Free Browse Map** mode, **Rydeen GPS** automatically disconnects from the GPS receiver.

Tap the **Set** button to configure the **Connection** fields.

GPS Troubleshooting

Signal too low

When you first start **Rydeen GPS** you may hear the "Signal too low" message. This message means that your navigation device has not yet located a reliable GPS signal.

Units of Measure



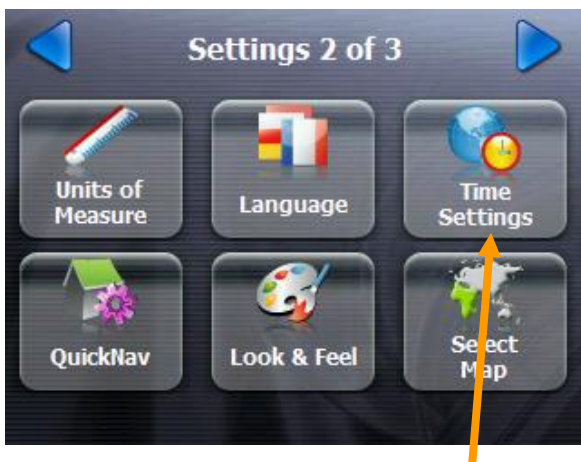
From the **Settings** menu, **Tap "Units of Measure"** button to specify the measurement system you would like to use.

You can select:

- Miles, Yards
- Miles, 10th of a Mile
- Kilometres, Metres

Figure 32 – Units of Measure

Time Settings



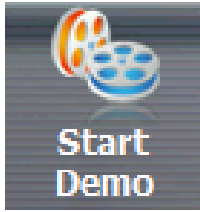
From the **Settings** menu, **Tap "Time Settings"** button to display time settings.



Figure 34 - Time Zone Settings

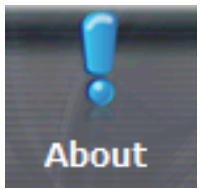
You can select the **"Adjust to Daylight Savings"** checkbox to automatically adjust for daylight savings.

Start Demo



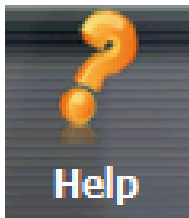
From the **Settings** menu, Tap "**Start Demo**" button to display a simulated route. Many of the **Rydeen GPS** navigation features are disabled when the Demo is running. You can end the Demo by tapping the "**Stop Demo**" button.

About



From the **Settings** menu, Tap "**About**" button to display version and Copyright information.

Help



From the **Settings** menu, Tap "**HELP**" button to display technical support information.

9. Device System Settings



Tap Quit button to go to the Main Menu screen



Starts **Rydeen Navigation**

Opens the mirror **Settings** screen.

Figure 27 - The Device Main Menu



Tap the  button to return to the previous screen

Figure 28 - System Settings

Brightness (Backlight) Settings

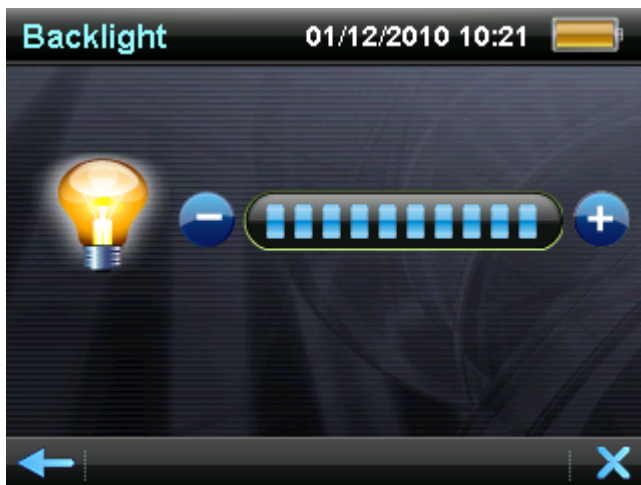


Figure 29 - Backlight Settings

This screen lets you determine the brightness of the screen.

Date-Time Settings



Figure 30 - Date-Time Settings

This screen lets you select your time zone and set the date and time.

Language Settings



Figure 31 - Language Settings

This screen lets you select the language to be used for system screen displays.

System & Touch Screen Calibration

From the main menu screen, select the **System** icon to see the system info as below.



Figure 32 - System Information

This screen displays information about the device.

Calibration optimizes the touch screen LCD for accurate finger or stylus pointing.

Software Launch Path Selection



Tap here to go to next screen



Tap here to enter the Software Launch Path setting screen



Select this box to start the navigation software automatically after the unit is powered on (default).



Tap here to confirm the executable file and return to the main menu screen.

10. Music and Volume Settings

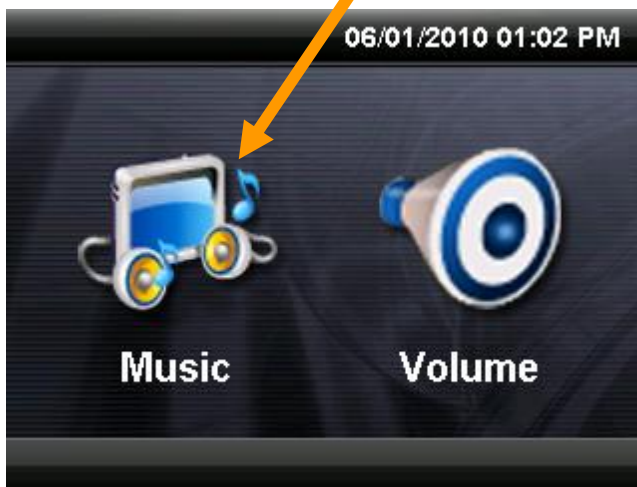
Press the MUTE  Button (located on the bottom of the mirror) for less than 1 sec. to mute the mirror. To resume with sound, press MUTE button again.

Press the MUTE  Button (located on the bottom of the mirror) for more than 3 seconds, the Sound Control Main Screen shows as following.

Follow the procedures below to operate your **Music Player**.

Create a folder  **MUSIC** on your microSD card. Insert the microSD card to your Navigation System.

Select



Select



Select



Tap and Song will play

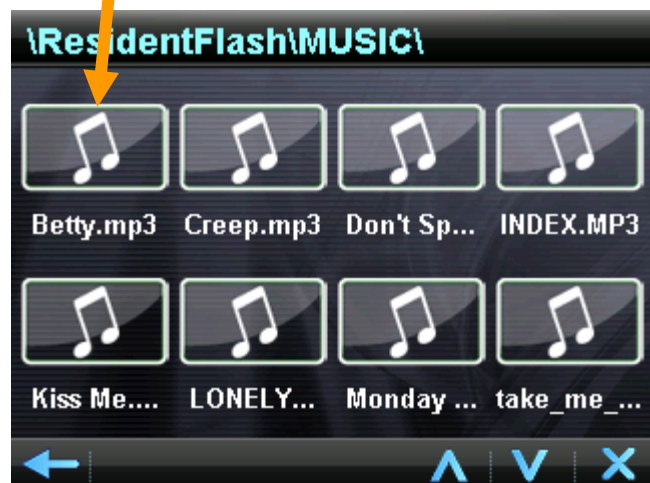


Figure 33 – Select Music Player

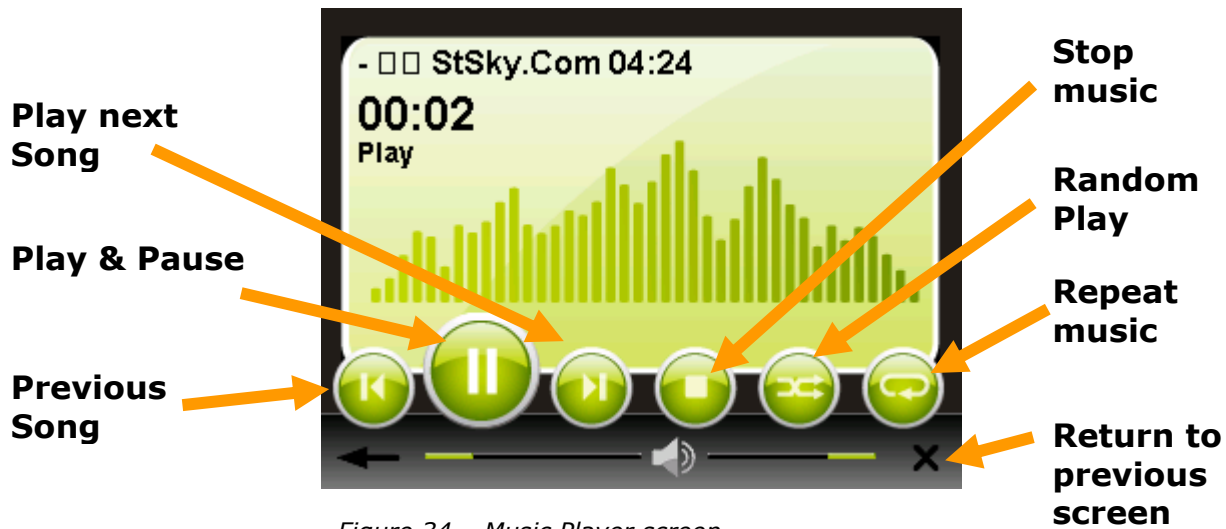
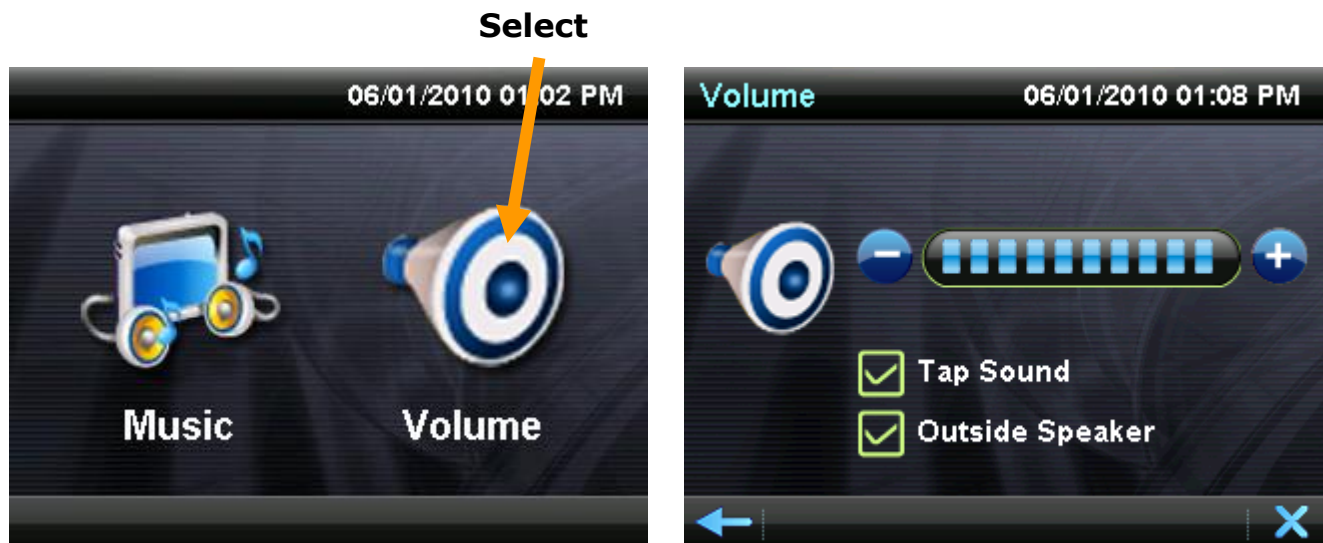


Figure 34 – Music Player screen

After selecting a music to play, press the MUTE  Button for less than 1 sec, will bring the screen to Navigation View. Press the MUTE Button more than 3 sec. again to go back to Sound Control Main Screen.

To select more sound control options, please follow below steps.



Select **“Tap Sound”** to able/disable the **“click”** sound.

Select **“Outside Speaker”** to allow Audio Line Out to turn on (this action turns off the audio from internal speaker of the mirror).

- **Adjust +/- for internal speaker volume adjustment.**
- **When “Outside Speaker” is selected, this volume controls the LINEOUT LEVEL.**

- Select a proper **LINEOUT LEVEL** for optimum sound quality from your car speakers using +/- adjustment icons.

11. Handsfree Bluetooth Operation

Your MN312S/MN312D is equipped with a Bluetooth-enabled handsfree function to enable you to make and receive cellular phone calls in safety while driving. The process of creating a secure connection between your cellular phone and the mirror unit is called **pairing**. (**Note:** your cellular phone **MUST** have Bluetooth capability and have its Bluetooth function turned on in order to make a connection with the mirror unit. If you are not sure, please consult the manual that came with your phone.)

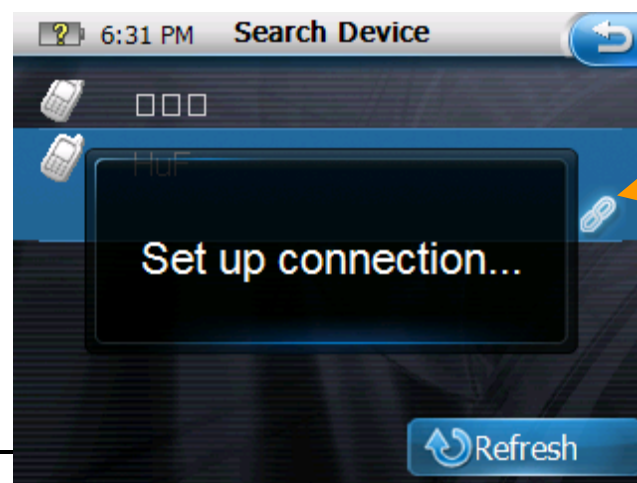
Pairing Your Phone with the Mirror Unit

1. Please make sure that your phone is in "Discoverable Mode". Then you are ready to begin the pairing process.
2. Press the Bluetooth  Button (located on the bottom of a mirror) to enter the Main Bluetooth Control screen on the mirror unit then tap the '**Settings**' icon.
3. Press the 'Search Device' icon on the Bluetooth settings menu.

Select



Select



**Tap this
LINK icon
to connect**

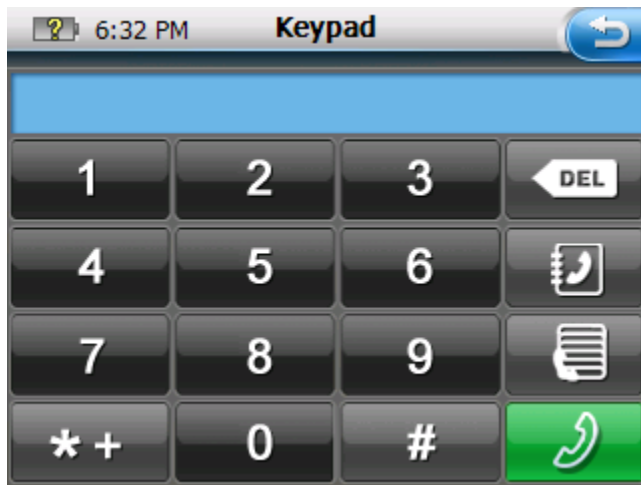
4. After the 'Search Device' process completes, you will then see a list of devices those are ready to be connected. Choose the one you would like to connect and tap the 'LINK' icon.
5. **Occasionally the screen may show 'Connection Failed', because the Bluetooth module try to connect to the previously connected device (Auto-Reconnect Feature). Tap the 'LINK' icon again and the new device will be connected.**
6. Tap "Search Device" to show Bluetooth Device you want to connect. After you confirm your device name, tap the "**LINK**" icon to connect your phone.
7. Select '**RYDEEN**' on your phone, and it will ask you to enter the pairing code used by the mirror unit. (**The default code is 0000**) Once the code is entered, your phone should indicate the pairing process is successful.
8. Depending on the model of your phone, it may offer you the option of connecting to the mirror unit whenever the mirror unit is on and in range (approximately 10 feet, up to 30 feet distance) of your phone. If you do not select this feature, you will need to manually connect your phone to the mirror unit, either by using your phone's menu to select and connect, or by using the 'Paired Devices' selection in the mirror unit's Bluetooth menu.
9. Note: If your phone does not locate the mirror unit, repeat the pairing procedure, ensuring that you are within acceptable range and completing the process within the 60-second period. If the pairing code is incorrect, check to ensure that the code has not been changed on the mirror (see 'Properties' at the Settings menu for changing the 'Pairing PIN Code.')

Making Calls Using Bluetooth

You can initiate calls four ways:

1. **Use your handset to initiate a call.** Your phone will automatically use the microphone and playback capability of the mirror unit.
2. **Use the Key Pad on the mirror unit to initiate a call.** Long press the Bluetooth hard key  button. From the Bluetooth menu, press the 'Keypad' icon. You can then either use the Keypad to directly dial a number. Press the 'Phone' icon to start your call.
3. **Use the Call Log on the mirror unit to initiate a call.** From the Bluetooth menu, press the 'Dial Pad' icon, then press the 'Call Log' icon to view a list of previously called, received and missed numbers. Select the number you want and press the 'Phone' icon to initiate a call.

4. **Use the Redial feature on the mirror unit to initiate a call.** From the Bluetooth menu, press the 'Keypad' icon. Simply press the 'Phone' icon to immediately redial the last number called.



Phonebook button for select phones

Call Log button to show call history & memory dial

Dial and Redial button

Receiving and Ending Calls

Answer & Hang-up call can be operated by using the hard key  button located on the bottom of the mirror. When you receive a call on a phone that is connected to the mirror unit via Bluetooth, you also will see a pop-up graphic on the mirror unit screen, accompanied by the number of the calling party (if Caller ID is enabled).



During a call, you have the following options:

- Adjust the speaker volume from lowest to highest
- Mute / Un-mute the call (you can still hear the caller, but he / she cannot hear you)
- View the call duration (automatic)
- Access the number keypad to make choices on automated calls (DTMF)
- Switch the call between your cell phone from the mirror unit (Transfer)

- Go back to Navigation screen and still able to use Bluetooth
- End the call

Viewing or Changing the Pairing Code

1. Press 'Setting' from the Bluetooth menu. Then press 'Properties'. In the 'PIN Code' field is the current pairing code.
2. To change it, press the 'PIN Code' field then a keypad will show. Enter a new code.
3. Press the ENTER key  to complete your change.

To Connect to Other Phones

- **To see which phones are paired with your mirror unit**, you will see the connected phone's 'NAME' appeared on the top of Bluetooth Main Menu.
- **Press 'DisConn' to disconnect from the currently connected phone.** Then go through the 'Pairing' process from the beginning.

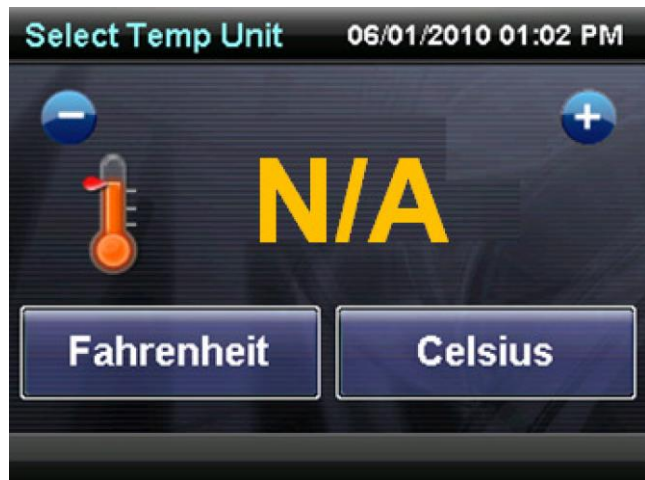
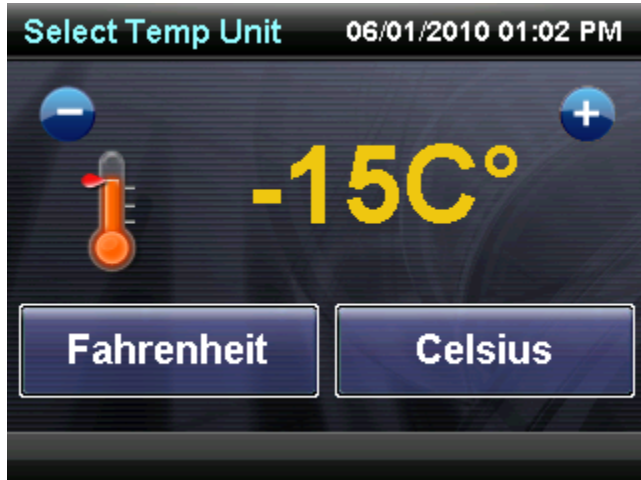
Note

This Bluetooth device can connect ONLY ONE PHONE at a time to ensure the safety of a driver.

12. Temperatures Display Button Function

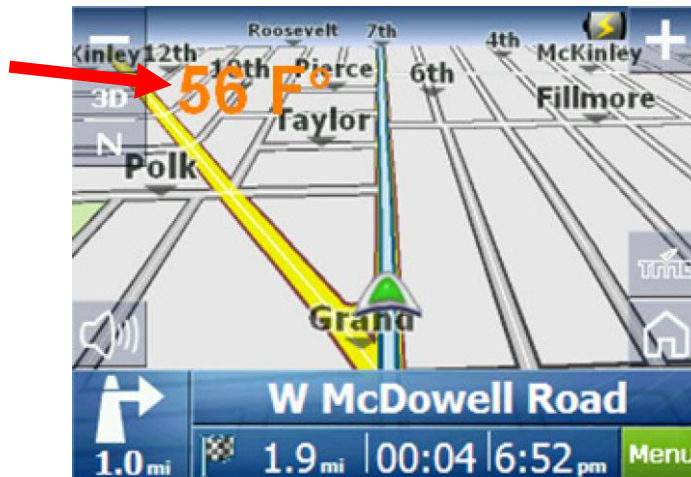
Please follow Page 13 for the installation instructions of temperature sensor.

Press the Temperature Display Button  (located on the bottom of the mirror) for more than 3 sec. to go to '**Select Temp Unit**' screen as seen below. If temperature sensor probe is not installed, then the display will show **N/A** as following. You may select from 2 temperature unit readings (Fahrenheit & Celsius).



With the short press of the temperature display button  (less than 1 sec.) will display the current temperature superimposed on the display screen (Navigation View, Music Control screens etc.)

Temp Display Reading



13. Store Demo Video Playback

To play Rydeen product promotional video, please follow the following steps.



Tap this to go to the next screen.



Tap this icon to play the promotional video.



Touch the bottom of the screen to show the video control.

Pause/Play

Stop

Return/Exit

14. Specifications

GPS Hardware Parameters	
Frequency	1.57542 GHz
Frequency (IF)	6.2MHz
Channel Number	20 channels
Tracking sensitivity	-150 dBm
Positioning Sensitivity	10m 2D RMS, 5m 3D RMS, WAAS enable
Speed Rate	0.1 m/s
Date update rate	1Hz
Recapture time	0.1 Sec (average)
Hot Startup Time	less than 3 Sec
Warm Startup Time	20 Sec (average)
Cold Startup Time	45 Sec (average)
Max positioning height	18,000 m
Maximum speed rate	500 m/s
Acceleration	<4G
GPS antenna type	Built-in active ceramic antenna
GPS antenna gain	24dB
GPS antenna voltage	3.3V (+/-5%)
GPS antenna current	15 mA
Basic Parameters	
Video In (backup camera)	CVBS
Screen dimensions	3.5
Touch screen type	Resistive
Resolution	320 X 240
Audio line-out	2-channel CD sound quality
Audio power (internal)	4Ω 2W
Power supply	DC 9V to 16V
Media Playback Format	
Audio	MP3/WMA9/WAV
Video (product promotion video only)	WMV,AVI,ASF,MOV,MPG,3GP,FLV,MP4
Bluetooth Features	
--Compliant to v2.1 +EDR specification	
--A2DP client for music play	
--Auto-reconnect	
--Wind noise and echo cancellation	
--Audio playback through internal speaker or line-out (car speakers)	
--Simple pairing process	
--Phonebook support (select phones)	

15. Maintaining Your GPS

Cleaning the Unit:

1. Use a soft, dry cloth to wipe away dirt.
2. If the dirt cannot be wiped away, dampen the cloth with water to clean the unit.

NOTE: Do not wash the unit with running water as this unit is not water proof.

3. Use a dry cloth to wipe away residual moisture when done.

NOTE: Do not use solvent, car cleaner or organic cleaners to clean the unit. These substances may damage the GPS unit.

Cleaning the LCD Display:

1. Turn off the system while cleaning the display to prevent static electricity.
2. Use a soft, dry cloth to wipe away dirt.
3. The display surface is easily scratched. Do not use hard objects to scrape or come in contact with the display surface.

16. Technical Support Contact Info

If you have other questions about the **RYDEEN GPS**, please contact your retailer or Technical Support:

- Telephone: **1-877-777-8811 (within USA only)**
- Email: **tech1@rydeenmobile.com**
- Web Address: **www.rydeenmobile.com**

17. One Year Limited Warranty

Rydeen North America Inc. (a manufacturer of "Rydeen" products) warrants this product (MN312S/MN312D) only to the original purchaser as described following:

Warranty Period

Rydeen warrants this product for a period of one (1) year from the original purchase date.

Warranty Coverage

This warranty covers all defects in material and workmanship except as specified below.

1. Installation by anyone other than an authorized Rydeen Mobile Retailer voids the warranty.
2. Any products distributed outside of the USA by Rydeen North America Inc. (Rydeen) or which is not purchased in the USA or Canada unless the product is purchased through the USA Military Exchange Service.

3. Any product(s) which are purchased from an unauthorized retailer (in store or online).
4. Any products in which the serial number label or the model number label are removed, torn, modified or replicated.
5. Any damage defects or malfunctions resulting from any of following:
 - a) When defect occurs during shipment of product (freight carrier's responsibility).
 - b) Installation or removal of product.
 - c) Accidents, act of nature, misuse, abuse, neglect, unauthorized product modification or failure to follow product owner's manual instructions.
 - d) Any repair or attempt to repair without RYDEEN authorization.
 - e) Any other cause which is not related to product defect.
 - f) Any cosmetic damages due to normal wear and tear.
 - g) Any consumable items (such as fuse or batteries).

If any problems develop with your Rydeen products during or after the Limited Warranty Period, or if you have any questions regarding the operation or installation of the product, you should contact your Rydeen retailer. If the problem or your question is not handled to your satisfaction, please contact Rydeen Customer Service Department at 1-877-777-8811 (within the USA only) Monday - Friday between 9:00 AM to 4:00 PM Pacific Standard Time or visit www.rydeenmobile.com.

18. To Obtain Warranty Service

If warranty service is required for your Rydeen product:

1. Please call Rydeen Customer Service Department at 1-877-777-8811 (within the USA only), Monday–Friday between 9:00 AM to 4:00 PM Pacific Standard time and obtain a Return Authorization Number ("RA") Number.
2. Please pay for any shipping charge to Rydeen Customer Service Department. Rydeen will pay the return shipping charge, if the repair or service was performed during the warranty period. Rydeen will ship freight collect (recipient is responsible for shipping charge) if Rydeen determine the service was performed outside of warranty period or exclusions described above. Rydeen will not accept warranty service requests from outside of the U.S.A. even if product was purchased in the USA.
3. Please include a copy of your original purchase receipt including Rydeen product model number, purchase date, retailer name/address and a RA Number whenever your product is sent for warranty service.
4. Rydeen will pay for all labor and material expenses for covered product during warranty period.
5. Shipping address for Rydeen Customer Service Department is following:

Rydeen North America Inc. (a manufacturer of Rydeen products), 2701 Plaza Del Amo, Unit 705, Torrance, California 90503, USA

19. FCC Compliance Statement

This device complies with Part 15 of the FCC interference limits for Class B digital devices for home or office use. These limits are designed to provide more reasonable protection against harmful interference in a residential installation and are more stringent than “outdoor” requirements.

Operation of this device is subject to the following conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

20. Copyright

1. Intellectual Property Rights of Software are proprietary to Destinator Technologies or its suppliers and are subject to copyright and other intellectual property laws. Client's only rights with respect to any Destinator Technologies software included with the products shall be provided, under the terms of Destinator Technologies' software license. The title to all Destinator Technologies Software remains with Destinator Technologies. Client agrees that Destinator Technologies retains ownership of all rights, title and interest in all intellectual property, works of authorship, trade secrets and the like in all aspects of the Product(s). Client and its affiliates and subcontractors agree not to reverse engineer any aspect of the Software and/or Products supplied under this agreement and further agree to pay assessed damages should such action take place.

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Software Copyright © 2009, Intrinsyc Destinator Technologies

21. Disclaimer

The information in this user manual is for general guidance. Images in the manual may resemble but not exactly match the images that are displayed in the navigation software. Some features described in the manual may not be available or the features described may be limited, depending on the navigation software.

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